NetBackup™ Release Notes

Release 11.0.0.1

VERITAS
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NetBackup™ Release Notes

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Legal Notice

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Documentation

Make sure that you have the current version of the documentation. Each document displays the date of the last update on page 2. The latest documentation is available on the Cohesity website.

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Cohesity Services and Operations Readiness Tools (SORT)

Cohesity Services and Operations Readiness Tools (SORT) is a website that provides information and tools to automate and simplify certain time-consuming administrative tasks. Depending on the product, SORT helps you prepare for installations and upgrades, identify risks in your datacenters, and improve operational efficiency. To see what services and tools SORT provides for your product, see the data sheet:

https://sort.veritas.com/data/support/SORT_Data_Sheet.pdf

Contents

Chapter 1

About NetBackup 11.0.0.1

This chapter includes the following topics:

About the NetBackup 11.0.0.1 release

The *NetBackup Release Notes* document is meant to act as a snapshot of information about a version of NetBackup at the time of its release. Old information and any information that no longer applies to a release is either removed from the release notes or migrated elsewhere in the NetBackup documentation set.

See "About new enhancements and changes in NetBackup" on page 9.

About EEBs and release content

NetBackup 11.0.0.1 incorporates fixes to many of the known issues that affected customers in previous versions of NetBackup. Some of these fixes are associated with the customer-specific issues. Several of the customer-related fixes that were incorporated into this release were also made available as emergency engineering binaries (EEBs).

Listings of the EEBs and Etracks that document the known issues that have been fixed in NetBackup 11.0.0.1 can be found on the Cohesity Operations Readiness Tools (SORT) website and in the *NetBackup Emergency Engineering Binary Guide*.

See "About Cohesity Services and Operations Readiness Tools" on page 31.

About NetBackup appliance releases

The NetBackup appliances run a software package that includes a preconfigured version of NetBackup. When a new appliance software release is developed, the

latest version of NetBackup is used as a basis on which the appliance code is built. For example, NetBackup Appliance 3.1 is based on NetBackup 8.1 This development model ensures that all applicable features, enhancements, and fixes that were released within NetBackup are included in the latest release of the appliance.

The NetBackup appliance software is released at the same time as the NetBackup release upon which it is based, or soon thereafter. If you are a NetBackup appliance customer, make sure to review the *NetBackup Release Notes* that correspond to the NetBackup appliance version that you plan to run.

Appliance-specific documentation is available at the following location:

http://www.veritas.com/docs/000002217

About NetBackup Late Breaking News

For the most recent NetBackup news and announcements, visit the NetBackup Late Breaking News website at the following location:

http://www.veritas.com/docs/000040237

Other NetBackup-specific information can be found at the following location:

https://www.veritas.com/support/en_US/15143.html

About NetBackup third-party legal notices

NetBackup products may contain third-party software for which Cohesity is required to provide attribution. Some of the third-party programs are available under open source or free software licenses. The license agreement accompanying NetBackup does not alter any rights or obligations that you may have under those open source or free software licenses.

The proprietary notices and the licenses for these third-party programs are documented in the *NetBackup Third-party Legal Notices* document, which is available at the following website:

https://www.veritas.com/about/legal/license-agreements

Chapter 2

New features, enhancements, and changes

This chapter includes the following topics:

About new enhancements and changes in NetBackup

In addition to new features and product fixes, NetBackup releases often contain new customer-facing enhancements and changes. Examples of common enhancements include new platform support, upgraded internal software components, interface changes, and expanded feature support. Most new enhancements and changes are documented in the *NetBackup Release Notes* and the NetBackup compatibility lists.

Note: The *NetBackup Release Notes* only lists the new platform support that begins at a particular NetBackup version level at the time of its release. However, Cohesity routinely backdates platform support to previous versions of NetBackup. Refer to the NetBackup Compatibility List for all Versions for the most up-to-date platform support listings.

See "About the NetBackup 11.0.0.1 release" on page 7.

See "About NetBackup compatibility lists and information" on page 39.

NetBackup 11.0.0.1 new features, changes, and enhancements

New features, changes, and enhancements in NetBackup 11.0.0.1 are grouped below by category. Select a link to read more information about the topic.

New features

- Changes in Cohesity terminology
- Support for Hyper-V policy type for malware scanning
- Configuring FortKnox Google
- New features for NetBackup for Microsoft SQL Server

Secure communication features, changes, and enhancements

- **Note:** Before you install or upgrade to NetBackup 11.0.0.1 from a release earlier than 8.1, make sure that you read and understand the *NetBackup Read This First for Secure Communications* document. NetBackup 8.1 includes many enhancements that improve the secure communications of NetBackup components. The *NetBackup Read This First for Secure Communications* document describes the features and benefits of these enhancements:

  NetBackup Read This First for Secure Communications

Support changes and enhancements

- NetBackup 11.0.0.1 support additions and changes
- Several shutdown commands to be deprecated in a future release
- New features and enhancements to the NetBackup web UI
- New enhancements for NetBackup for Oracle

Cloud-related changes and enhancements

- Update cloud configuration file on the primary server immediately after install or upgrade to NetBackup 11.0.0.1

Workload and database agent changes and enhancements

- NetBackup supports MongoDB Ops Manager workload

Other announcements

- Veritas Alta View Recovery Vault is now FortKnox for NetBackup

Changes in Cohesity terminology

To modernize our terminology, Cohesity has begun to replace certain outdated terms with more current terms.

Note: As Cohesity continues to update its terminology, the deprecated terms and the new terms may be used interchangeably.

Deprecated term	New term
Master	Primary
Slave	Secondary or media server
Whitelist or white list	Allowed list
Blacklist or black list	Blocked list
White hat	Ethical
Black hat	Unethical

Update cloud configuration file on the primary server immediately after install or upgrade to NetBackup 11.0.0.1

If you use cloud storage in your NetBackup environment, you may need to update your cloud configuration file on the NetBackup primary server immediately after you install or upgrade to NetBackup 11.0.0.1. If a cloud provider or related enhancement is not available in the cloud configuration file after you upgrade to NetBackup 11.0.0.1, related operations fail.

Cohesity continuously adds new cloud support to the cloud configuration files between releases. Updating your cloud configuration files is necessary only if your cloud storage provider was added to the cloud configuration package after version 2.13.0.

The following cloud support has been added to version 2.13.1 and later but was not included in the NetBackup 11.0.0.1 final build:

- HPE Alletra Storage MP X10000 (S3)
- Nutanix Objects S3 object lock (S3)

- Cloud Object store protection (COSP) Nutanix Objects
- Amazon (S3) – Mexico (Central) region
- Oracle Cloud (OCI) Archive tier (S3)
- DigiBoxx Megh3 (S3)
- NEC Cloud Storage (St) (S3)
- Google (S3) – Santiago (southamerica-west1) region
- Google (S3) – Stockholm (europe-north2) region
- Renamed Veritas Access to Cohesity Access (S3)
- Cloud Object store protection (COSP) iTernity iCAS FS
- Amazon (S3) – Asia Pacific (Malaysia)
- Amazon (S3) – Asia Pacific (Thailand)
- FortKnox Amazon (S3) - Mexico (Central)

For the latest cloud configuration package, see the following technical article:

https://www.veritas.com/content/support/en_US/downloads/update.UPD971796

For additional information on adding cloud storage configuration files, refer to the following technical article:

http://www.veritas.com/docs/100039095

Several shutdown commands to be deprecated in a future release

A new, fully documented command for shutting down NetBackup processes and daemons will be provided in an upcoming release. At that point, the following commands will no longer be available:

- `bp.kill_all`
- `bpdown`
- `bpclusterkill`

Please plan accordingly. The new command will be announced in future release notes and in the *NetBackup Commands Reference Guide*.

New features and enhancements to the NetBackup web UI

In this release the NetBackup web UI contains the following new features and enhancements:

- This release includes the log collection feature that lets you gather evidence to troubleshoot an issue. This evidence includes nbsu diagnostic information and log files. You can then download the evidence and separately upload it to Cohesity Technical Support. You can collect logs in the following ways:
  - **Help menu > Log collection**.
  - In the Activity monitor, select a job in the Jobs tab and select **Collect logs**.
  - In the details for a job, select **Collect logs**.

New enhancements for NetBackup for Oracle

NetBackup 11.0.0.1 includes updates to the `nboracmd` command. These changes add the following capabilities:

- Add the following assets: Databases (RAC database or single instance database), instances, RMAN catalogs, or Data Guards
- Discover the following assets: Databases or Oracle pluggable databases (PDBs)
- Delete the following assets: Databases, Oracle pluggable databases (PDBs), instances, RMAN catalogs, or Data Guards
- List Data Guards

NetBackup 11.0.0.1 support additions and changes

Note: This information is subject to change. See the NetBackup Compatibility List for all versions for the most recent product and services support additions and changes.

The following products and services are supported for NetBackup 11.0 and earlier versions and qualified with NetBackup 11.0.0.1:

Platforms

- Windows Server 2025 - Disaster Recovery
- VMware Guest OS (Windows Server 2025)
- Redhat Linux 9.x (x64)
- Rocky Linux 9.6
- Oracle Linux 9.6 (x86-64) Unbreakable Linux Kernel
- Oracle Linux 9.6 (x86-64) Red Hat Compatible Kernel
- AIX 7.3 TL3 (Client, File Systems) (POWER)

- InfoScale 8.0.2 - SLES15SP6
- Debian 12.10 Client

Database

- SAP HANA 2.0 SPS 07 - Red Hat Enterprise Linux 9.4 POWER
- SAP HANA 2.0 SPS 08 - SUSE Linux Enterprise Server 15 SP5 (x86_64)
- SAP HANA 2.0 SPS 08 - SUSE Linux Enterprise Server 15 SP5 (Power 9)
- SAP HANA 2.0 SPS 08 - SUSE Linux Enterprise Server 15 SP6 (Power 9)
- SAP ASE 16.1 - SLES 15.x (x86-64)
- SAP ASE 16.1 - RedHat Linux 9.x (x86-64)
- SAP ASE 16.1 - Windows Server 2022 (x86-64)
- MySQL 8.x - Debian 11
- MariaDB 11.x - Windows 2025
- SAP Oracle - Red Hat Enterprise Linux 9.x
- DB2 12.x - Windows Server 2022 (x64-86)
- DB2 12.x - AIX 7.3 (POWER)
- DB2 12 - SUSE Linux Enterprise Server 15 SP6 (x86-64)
- Informix 15.x - Ubuntu 22.04
- PostgreSQL 17.x - Windows Server 2022
- MongoDB 8.0.x - Rocky Linux 9.x
- PostgreSQL 17.x - Rocky Linux 9.x
- PostgreSQL 17.x - Rocky Linux 8.x
- Microsoft SQL Server 2022 - Windows Server 2025
- Microsoft SQL Server 2019 - Windows Server 2025
- MariaDB 10.x - Debian 12.x

Other support and changes

- BMR - Client/Boot Server - Windows Server 2025 preview
- BMR - Client/Boot Server - IBM AIX 7.3 TL2
- HPE New tape library - MSL2024 G4 - Windows Server 2025
- HPE 1x8 G3 AUTOLOADER Tape Library - Windows Server 2025
- BMR - Client/Boot Server - Oracle Enterprise Linux 8.10 (x86-64)

- HPE New tape library - 1x8 G3 AUTOLDR - RHEL 9.x

S3ObjectStorage

- Google Cloud (GCP) region Stockholm (europe-north2)
- AWS new region Thailand (ap-southeast-7)
- AWS new region Malaysia (ap-southeast-5)
- NEC Cloud Storage (St) with object lock
- Cloud Object Storage Protection for iTernity iCAS FS
- Google Cloud (GCP) region Santiago (southamerica-west1)
- NEC Cloud Storage (St)
- NEC Cloud Storage (St) Object lock - SLES
- NEC Cloud Storage (St) Object lock - RHEL

NDMP

- Dell EMC PowerScale OneFS 9.10 NDMP - NB 10.x, 11.0 - Windows
- Dell EMC PowerStore 4.0 NDMP - NB 10.x - Windows 2022
- NetApp ONTAP 9.16 NDMP - NB 10.x, 11.0 - Window
- Dell EMC PowerStore 4.0 NDMP - NB 10.x,11.x - RHEL 9.x
- Dell EMC PowerStore 4.0 NDMP - NB 11.x - Windows 2025

NetBackup Snapshot Manager

- AlmaLinux 9.5 Guest VM (NBSM)
- NetBackup Snapshot Manager - AlmaLinux 8.10
- AlmaLinux 8.10 Guest VM (NBSM)
- NetBackup Snapshot Manager - AlmaLinux 9.5

OpenStorage

- Quantum DXi OST plug-in 11.0 with SuSE 15 SP6
- Dell Data Domain OST plug-in 8.3 on NB virtual appliances
- Dell Data Domain OST plug-in 8.3 on Windows 2016, Windows 2019, and Windows 2022
- Dell Data Domain OST plug-in 8.3 on SLES 12
- NEC HYDRAStor OST plug-in 2.12 - Windows 2025
- Quantum DXi OST plug-in 11.0 with RHEL 9

- Quantum DXi OST plug-in 11.0 with Rocky Linux 9
- Quantum DXi OST plug-in 11.0 with Windows server 2025
- Quantum DXi OST plug-in 11.0 with Oracle Linux 9
- Dell EMC Data Domain Virtual Edition 8.1 and OST plug-in 8.1

Virtualization

- Azure Stack Hub 2501
- VMWare - RedHat 8.10 as a Backup Host (VDDK 8.0.3)
- Nutanix AOS 7.0.0.5 - Windows Server (Backup Host)
- Nutanix AOS 7.0.0.5 - RedHat Enterprise Linux (Backup Host)
- K8S - Vanilla 1.32
- Hyper-V Server 2025 and guest operating system Windows Server 2025

Cloud object store

- Support added for backup hosts running on SUSE operating system
- Cloud object store protection (COSP) support on SLES media server
- Nutanix Tag support fix test on latest Nutanix Objects v5.1.1

NetBackup supports MongoDB Ops Manager workload

MongoDB Ops Manager is an essential tool for leveraging MongoDB databases. It simplifies database management through real-time monitoring and robust backup solutions. The Ops Manager Automation enables you to configure and maintain MongoDB nodes and clusters.

NetBackup allows you to monitor, backup, and recover the assets from MongoDB Ops Manager portal. The policy in NetBackup supports Full backup and Differential Incremental backups, as defined in NetBackup policy.

For more information, see *NetBackup™ for MongoDB Ops Manager Administrator's Guide*.

Configuring FortKnox Google

FortKnox Google for NetBackup can be configured in the web UI or using the CLI. Also, the `msdpcldutil` command is updated for FortKnox.

Refer to the following sections in the *NetBackup Deduplication Guide*:

- Configuring FortKnox Google for NetBackup
- Configuring FortKnox Google for NetBackup using the CLI

New features for NetBackup for Microsoft SQL Server

When NetBackup performs an intelligent group backup that contains that database that is no longer in the SQL Server live environment, NetBackup logs a message, reports a status code 1, and indicates the Database state as **Deleted** for that database. The following is an example log message:

```
08:31:05.561 [5736.15584] <2> debuglog:
<16> bphdb do_script: ERR - exit status:
5465 Could not find database objects during backup.

08:31:05.561 [5736.15584] <2> debuglog:
<16> bphdb do_script:
INF - Partial success status so switch status
from <5465> to <1>
```

Support for Hyper-V policy type for malware scanning

NetBackup 11.0.0.1 now supports malware scanning for the Hyper-V policy type. For more information, see the *NetBackup Hyper-V Administrator's Guide*.

Veritas Alta View Recovery Vault is now FortKnox for NetBackup

Veritas Alta Recovery Vault is renamed FortKnox for NetBackup. This is a branding change only, and does not reflect any changes in the service level or require any changes in the customer environment. This effort is part of the overall naming convention and branding alignment strategy within Cohesity.

Chapter 3

Operational notes

This chapter includes the following topics:

About NetBackup 11.0.0.1 operational notes

NetBackup operational notes describe and explain important aspects of various NetBackup operations that may not be documented elsewhere in the NetBackup documentation set or on the Cohesity Support website. The operational notes can be found in the *NetBackup Release Notes* for each version of NetBackup. Typical operational notes include known issues, compatibility notes, and additional information about installation and upgrade.

Operational notes are often added or updated after a version of NetBackup has been released. As a result, the online versions of the *NetBackup Release Notes* or other NetBackup documents may have been updated post-release. You can access the most up-to-date version of the documentation set for a given release of NetBackup at the following location on the Cohesity Support website:

NetBackup Release Notes, Administration, Installation, Troubleshooting, Getting Started, and Solutions Guides

NetBackup installation and upgrade operational notes

NetBackup can be installed and upgraded in heterogeneous environments using a variety of methods. NetBackup is also compatible with a mixture of servers and clients that are at various release levels in the same environment. This topic contains some of the operational notes and known issues that are associated with the installation, upgrade, and software packaging of NetBackup 11.0.0.1.

If NetBackup 11.0.0.1 upgrade fails on Windows, revert to previous log folder structure

The legacy log folder structure for non-root or non-admin invoked process logs has changed. The new folder structure is created under the process log directory name. For more information, refer to the *File name format for legacy logging* section from the NetBackup Logging Reference Guide.

For Windows, if the upgrade to NetBackup 11.0.0.1 fails and rollback occurs, run the following command to continue working on an earlier NetBackup version:

```
mklogdir.bat -fixFolderPerm
```

For more information, refer to the `mklogdir` command from the NetBackup Commands Reference Guide.

Native installation requirements

In NetBackup 8.2, a change was made to initial installs such that the answer file is now required. This change may have some negative effect on users who want to use the native packages to create VM templates or otherwise install the NetBackup packages without configuring the product. On Linux, one possible way of obtaining the previous behavior is with the `-noscripts` option of the RPM Package Manager. Providing this option when installing the `VRTSnbpck` package avoids the configuration steps. This option does not need to be provided when you install other packages.

The answer file must still exist, but the only value that must be provided is the role of the machine, either a client or a media server. For example:

```
echo "MACHINE_ROLE=CLIENT" > /tmp/NBInstallAnswer.conf
rpm -U --noscripts VRTSnbpck.rpm
rpm -U VRTSpbx.rpm VRTSnbclt.rpm VRTSpddea.rpm
```

NetBackup servers must use a host name that is compliant with RFC 1123 and RFC 952

Starting with NetBackup 8.0, all NetBackup server names must use a host name that is complaint with RFC 1123 ("Requirements for Internet Hosts - Application and Support") and RFC 952 ("DOD Internet Host Table Specification") standards. These standards include the supported and unsupported characters that can be used in a host name. For example, the underscore character (_) is not a supported character for host names.

More information is available about these standards and about this issue:

RFC 952

RFC 1123

http://www.veritas.com/docs/000125019

These standards should be applied to all computing hosts, including all NetBackup hosts. To accommodate legacy environments and functionality, features of NetBackup that were implemented before 2010 continue to allow some non-compliant characters. But newer features, as well as more recently integrated 3rd-party components, are not tested with nor expected to be compatible with host names that do not adhere to the industry standards.

In some situations, it may be possible to configure name services with a network hostname alias that is standards-compliant, and then use the alias when you configure NetBackup. But using host names that are standards-compliant is the only way to ensure compatibility with all features.

About support for HP-UX Itanium vPars SRP containers

Hewlett-Packard Enterprise (HPE) introduced a new type of container for HP-UX Virtual Partitions (vPars)-enabled servers called Secure Resource Partitions (SRPs). As part of the security changes introduced by SRPs, native HP-UX install tools such as `swinstall` and `swremove` are disabled from being run within the SRP environment. The `swinstall` and `swremove` tools can only be called from the global host running vPars, which then pushes the native packages to the SRP containers.

NetBackup only supports installing into the global view. NetBackup installation fails if you try to install into an HPE Itanium SRP container (private file system, shared file system, or workload).

NetBackup administration and general operational notes

NetBackup provides a complete, flexible data protection solution for a variety of platforms. The platforms include Windows, UNIX, and Linux systems. In addition to a standard set of data protection features, NetBackup can also utilize several other licensed and non-licensed components to better protect a variety of different systems and environments. This topic contains some of the general operational notes and known issues that are associated with the administration of NetBackup 11.0.0.1.

Policies using Replication Director fail with error code 4224

When you try to modify any existing policy with the **Use Replication Director** and **Perform snapshot backups** options selected in the NetBackup web UI, this error appears:

```
Error code 4224: Host. STS Internal Error
```

You can see the following message in the BPFIS logs:

```
15:16:13.416 [35337] <2> onlfi_vfms_logf: INF - snapshot services:
 ostfi:2023-09-26 15:16:13.416029 <Thread id - 1> Failed to wait for
 operation result, Error code [2060017] and message [system call failed]
15:16:13.417 [35337] <2> onlfi_vfms_logf: INF - snapshot services:
 ostfi:2023-09-26 15:16:13.417125 <Thread id - 1> OST Library call
 failed with message (STS API waitForAsyncCall failed with error
 code : 2060017)
```

Workaround:

Do any of the following actions:

- In the **Policy validation** dialog displaying the error, click **Ignore errors** and save. Open the NetBackup Administration Console (Java UI), edit the policy, and then save it.
- In the **Policy validation** dialog displaying the error, click **Edit policy**. To save the policy, click **Save**. In the **Policy validation** dialog displaying topology validation options, select the topology validation option as **None** or **Basic**, instead of **Complete**, and save.

NetBackup administration interface operational notes

The NetBackup administrator has a choice of several interfaces to use to administer NetBackup. All of the interfaces have similar capabilities. This topic contains some of the operational notes and known issues that are associated with these interfaces in NetBackup 11.0.0.1.

For more information about the specific NetBackup administration interfaces, refer to the *NetBackup Web UI Administrator's Guide* or the *NetBackup Administrator's Guide, Volume I*.

For information about how to install the interfaces, refer to the *NetBackup Installation Guide*. For information about platform compatibility with the administration consoles, refer to the various NetBackup compatibility lists available on the Cohesity Support website.

See "About NetBackup compatibility lists and information" on page 39.

Intermittent issues with X forwarding of NetBackup Administration Console

Intermittent issues may occur with X forwarding of the NetBackup Administration Console. This behavior only occurs when you use X forwarding. This issue does not occur at the local console. The issue is most commonly seen on Linux servers, but not exclusively. The issue generally occurs when older versions of X viewers are used, such as Xming and XBrowser.

The use of MobaXterm seems to minimize or eliminate the issue. If you experience issues with X forwarding, consider upgrading your X viewer and retrying the operation or access the server from the local console.

NetBackup Administration Console fails in Simplified Chinese UTF-8 locale on Solaris SPARC 64-bit systems with Solaris 10 Update 2 or later

The NetBackup Administration Console may encounter a core dump issue when the Simplified Chinese UTF-8 locale is used on a Solaris SPARC 64-bit system with Solaris 10 Update 2 and later installed. For more information, refer to Bug ID 6901233 at the following URL on the Oracle Technology Network website:

http://bugs.sun.com/bugdatabase/view_bug.do?bug_id=6901233

If you encounter this issue, apply the appropriate Solaris patches or upgrades that Oracle provides for this issue.

NetBackup Bare Metal Restore operational notes

NetBackup Bare Metal Restore (BMR) automates and streamlines the server recovery process, making it unnecessary to reinstall operating systems or configure hardware manually. This topic contains some of the operational notes and known issues that are associated with BMR in NetBackup 11.0.0.1.

After PIT restore, "The host ID does not exist" error appears

After a point in time (PIT) restore operation (which may include either a **Full File System** restore or a **BMR restore**), the error message **The host ID does not exist** appears.

In this scenario, a full backup is taken when a SERVICE_USER as root/administrator account is configured. This account takes the backup of the NetBackup installed binaries with root/administrator ownership. Before a restore, SERVICE_USER is configured with an account other than root/administrator, and then an incremental backup is taken where the service user is backed up as part of `bp.conf`. In a PIT restore operation with the incremental backup, the SERVICE_USER entry gets restored. However, the binaries are restored in the root account ownership.

Workaround:

After changing the service user, you must take a full backup, whether it is a **MS-Windows\Standard Policy** for File System or **BMR** policy configuration.

AIX BMR Shared Resource Tree (SRT) creation fails in NetBackup 11.0.0.1

The following error message appears on the command-line console while creating the Shared Resource Tree (SRT):

```
lslpp: Fileset libc++.rte not installed.

ERROR:   Could not resolve major version level from [].

ERROR: Detected an attempt to install incorrect platform and/or
 operating system and version client binaries on
 falcna12c3.abcus.abc.com.
Required AIX OS libc++.rte runtime is not present.
 File /tmp/install_trace.xxxxxxxx contains a trace of this
 install. That file can be deleted after you are sure the
 install was successful.
Do you want to retry install of Veritas NetBackup Client? (y/n) [y] :
```

During AIX BMR SRT creation, when you install NetBackup 11.0.0.1 client, you must have libc++ runtime version 16.1.0.7 or later inside the SRT. If a libc++ runtime version is not present in the AIX BMR SRT when you create it, then the NetBackup 11.0.0.1 client installation fails, which leads to the SRT creation failure.

Workaround:

See this technical article for workaround details:

https://www.veritas.com/support/en_US/article.100060647

NetBackup services may not start automatically after BMR restore on a Linux client

NetBackup services may not start automatically after a Bare Metal Restore (BMR) restore operation is performed on the Linux client.

The NetBackup services may run for a while after a BMR restore operation, and the BMR post-restore scripts may complete successfully. Later, however, NetBackup services may stop.

This issue happens only if a service user is different than the root user that is defined on the NetBackup Linux client.

Workaround:

Start the NetBackup services manually on the Linux client. To start the services, run the following command:

```
/usr/openv/netbackup/bin/bp.start_all
```

NetBackup Cloud Object Store Workload operational notes

This topic contains some of the operational notes and known issues that are associated with the NetBackup Cloud Object Store Workload in version 11.0.0.1.

Auto Image Replication (AIR) from NetBackup version 11.0.0.1 requires NetBackup 10.2 or later

You cannot run Auto Image Replication (AIR) from a computer with NetBackup version 11.0.0.1 to a target computer with a NetBackup version that is earlier than version 10.2.

Workaround:

None. Upgrade the target computer to NetBackup version 10.2 or later.

For Azure, backups fail when an older policy is updated with a new backup host

For Azure, if you update a policy that was created on a NetBackup version prior to 10.3, with a new backup host, backups fail.

The modified form of the queries in version 10.3 causes this issue.

Workaround:

Update all existing queries in the buckets to the new format.

Replicated backups cannot be restored to older NetBackup versions

If you replicate a backup image created on NetBackup 10.3 or later to an older NetBackup version, you cannot restore the buckets or containers having default retention enabled using the older version of NetBackup.

Workaround:

1. Restore with NetBackup version 10.3 or later.
2. Replicate the image to NetBackup version 10.3 or later.

Backup jobs become unresponsive and consume significant space on the temporary staging location.

NetBackup Cloud object store data protection feature uses the `ListObjects S3` API to iterate over the list of objects to further read and back up the objects in a bucket. The `ListObjects S3` API returns up to 1000 objects per request in lexicographical order, based on their key names and the NextContinuationToken. This NextContinuationToken is used for pagination. For example, for a `ListObjects S3` API call, to get the next set of 1000 objects and a new NextContinuationToken is used to get the subsequent page.

For certain Cloud object store providers, like Hitachi, the NextContinuationToken does not work correctly if the object names contain certain special characters, potentially hinders backup performance.

This behavior disrupts the `cos_sqllite` database that NetBackup uses in the temporary staging area. This database stores the object list for a backup job that is in progress. Because of this disruption, the `cos_sqllite` database drastically grows in size, filling up the disk space in the temporary staging area. This leads the NetBackup jobs to slow down and eventually fail.

Workaround:

1. Reconfigure the NextContinuationToken in the `ListObjects S3` API calls to return the proper value for each batch.
2. Cancel the existing backup job and retry backup.

NetBackup Snapshot Manager (formerly NetBackup CloudPoint)

Single file restore from snapshot copy fails for VM's created from Marketplace images for Alma Linux 9.5 and 8.10

Single file restore from snapshot copy fails for VM's created from Marketplace images:

```
Failed to attach new volume: Cannot attach volume
'vol-030b9bab869afe574' with Marketplace codes as the instance
'i-03617074318ed73d6' is not in the 'stopped' state.
```

NetBackup for VMware operational notes

In NetBackup 10.5 and later, VMware server asset discovery in the Web UI needs a backup host at NetBackup 10.5 or later

Starting with NetBackup 10.5, the host that is used for credential validation and asset discovery of a VMware server needs to be at version 10.5 or later. Otherwise, the discovery fails. By default, this value is the primary server. If you continue to use the primary server, no changes are needed.

NetBackup NAS operational notes

NetBackup Snapshot Manager and NDMP V4 snapshot extension can make snapshots of client data on a NAS host. A NAS snapshot is a point-it-time disk image. You can retain the Snapshots on the disk for any duration. Using the Instant Recovery feature in NetBackup, you can efficiently restore the data from the disk. Broadly, in NetBackup, snapshot-based data protection for NAS can be performed using NAS-Data-Protection policy and NDMP policy. This topic contains some of the operational notes and known issues that are associated with NetBackup NAS in NetBackup 11.0.0.1.

Parent directories in the path of a file may not be present in an NDMP incremental image

An issue can occur if a NetBackup Network Data Management Protocol (NDMP) backup policy is configured with the directive `set type=tar` in the backup selection. Parent directories in the path of a file that an incremental NDMP backup saves may not be present in the backup image. For more information on this issue, refer to the following tech note on the Cohesity Support website:

http://www.veritas.com/docs/000095049

NetBackup for OpenStack operational notes

NetBackup for OpenStack is an optional NetBackup application. This topic contains some of the operational notes and known issues that are associated with NetBackup for OpenStack in NetBackup 11.0.0.1.

NetBackup for OpenStack Datamover API (NBOSDMAPI) service times out in the haproxy connection

The NBOSDMAPI service in the haproxy connection may time out due to slow response time in highly-used environments.

The default haproxy configuration works fine with most of the environments. When the time-out issue with the NBOSDMAPI is observed, customize the haproxy configuration. For more information, see the following tech note:

https://www.veritas.com/support/en_US/article.100052551

Instance volumes in the incremental backups cannot be mounted

Newly added disks of an instance for incremental backup get backed up successfully but these disks cannot be mounted.

Restored VMs have blank metadata config_drive attached

For every restore, the metadata `config_drive` is set as blank value.

Workaround:

Delete metadata `config_drive` or set the desired value.

No operation is permitted in insecure way for SSL-enabled Keystone URL

For SSL enabled OpenStack, Backup and Restore jobs fail with missing TLS CA certificate bundle error.

Workaround:

Configure the NetBackup appliance with OpenStack CA provided.

Or provide OpenStack CA to `/etc/nbosjm/ca-chain.pem`

NBOS Backups and NBOS Backup Admin tabs disappear from Horizon UI after stack is updated

After you update the OpenStack stack, the **NBOS Backups** and **NBOS Backup Admin** tabs disappear from the NetBackup for OpenStack Horizon UI. The stack update incorrectly removes the endpoints from OpenStack. To resolve this issue, run the script `register_nbopenstack_service.sh`, which is provided with the installation package. This script registers the NetBackup for OpenStack service so that the **NBOS Backups** and **NBOS Backup Admin** tabs appear on the Horizon UI.

For more information, see the *NetBackup for OpenStack Administrator's Guide*.

NetBackup Cloud workload operational notes

This topic contains some of the operational notes and known issues that are associated with the NetBackup Cloud workload in version 11.0.0.1.

VMs and other OCI assets with CMK-encrypted disks are marked as deleted in NetBackup UI.

If the KMS service at the OCI provider is down, the VMs and other assets with CMK-encrypted disks are marked as deleted in NetBackup UI. Once the KMS service is restored, the deleted status is cleared after a successful plug-in level discovery, and the assets or VMs become eligible for backup. No further action is required.

Workaround:

Ensure that the KMS service at the OCI provider-end is running.

NetBackup internationalization and localization operational notes

This topic contains some of the operational notes and known issues that are associated with internationalization, localization, and non-English locales in NetBackup 11.0.0.1.

Support for localized environments in database and application agents

Non-ASCII characters are supported in the following fields for NetBackup database and application agents.

- Oracle:
  Datafile path, Tablespace name, TNS path
- DB2:
  Datafile path, Tablespace name
- SAP:
  English SAP runs on localized OS. (No specific SAP fields are localized.)
- Exchange:
  Mailboxes, Mails, Attachment names and contents, Public folders, Contacts, Calendar, Folders and Database paths
- SharePoint:
  Site Collection Names, Libraries and lists within the site collection
- Lotus Notes:
  Emails data /.nsf files
- Enterprise Vault (EV) agent:
  Vault store, Partitions, Data
- VMWare:
  Username, Password, VM display name, DataCenter, Folder, Datastore, Resource pool, VApp, Network name, VM disk path

Certain NetBackup user-defined strings must not contain non-US ASCII characters

The following NetBackup user-defined strings must not contain non-US ASCII characters:

- Host name (primary server, media server, Enterprise Media Manager (EMM) server, volume database host, media host, client, instance group)
- Policy name
- Policy KEYWORD (Windows only)
- Backup, Archive, and Restore KEYWORD (Windows only)
- Storage unit name
- Storage unit disk pathname (Windows only)
- Robot name
- Device name
- Schedule name
- Media ID
- Volume group name
- Volume pool name
- Media description
- Vault policy names
- Vault report names
- BMR Shared Resource Tree (SRT) name
- Token name
- Storage lifecycle policy (SLP) names

Appendix A

About SORT for NetBackup Users

This appendix includes the following topics:

About Cohesity Services and Operations Readiness Tools

Cohesity Services and Operations Readiness Tools (SORT) is a robust set of standalone and web-based tools that support enterprise products. For NetBackup, SORT provides the ability to collect, analyze, and report on host configurations across UNIX/Linux or Windows environments. This data is invaluable when you want to assess if your systems are ready for an initial NetBackup installation or for an upgrade.

Access SORT from the following webpage:

https://sort.veritas.com/netbackup

Once you get to the SORT page, more information is available as follows:

- **Installation and Upgrade Checklist**
  Use this tool to create a checklist to see if your system is ready for a NetBackup installation or an upgrade. This report contains all the software and the hardware compatibility information specific to the information provided. The report also includes product installation or upgrade instructions, as well as links to other references.
- **Hot fix and EEB Release Auditor**
  Use this tool to find out whether a release that you plan to install contains the hot fixes that you need.

- **Custom Reports**
  Use this tool to get recommendations for your system.
- **NetBackup Future Platform and Feature Plans**
  Use this tool to determine what items you can expect to see replaced with newer and improved functionality. The tool also provides insight about what items you can expect to see discontinued without replacement. Some of these items include certain NetBackup features, functionality, 3rd-party product integration, other product integration, applications, databases, and the OS platforms.

Help for the SORT tools is available. Click **Help** in the upper right corner of the SORT home page. You have the option to:

- Page through the contents of the help similar to a book
- Look for topics in the index
- Search the help with the search option

Appendix B

NetBackup installation requirements

This appendix includes the following topics:

About NetBackup installation requirements

This release of NetBackup may contain changes to the minimum system requirements and procedures that are required for installation. These changes affect the minimum system requirements for both Windows and UNIX platforms. Much of the installation instructional information in the *NetBackup Release Notes* is provided for convenience. Detailed installation instructions are found in the *NetBackup Installation Guide* and the *NetBackup Upgrade Guide*.

See "NetBackup installation and upgrade operational notes" on page 19.

- Before you upgrade the NetBackup server software, you must back up your NetBackup catalogs and verify that the catalog backup was successful.
- Before upgrading to NetBackup 11.0.0.1, you must ensure that you have the free disk space that is twice the size of the NetBackup relational database. That means for default installations of the primary server, you are required to have that amount of free space on the file system containing the `/usr/openv/db/data` (UNIX) or `<install_path>\Veritas\NetBackupDB\data` (Windows) directories. If you have changed the location of some of the files in either of these directories, free space is required in those locations equal to or greater than the size of the

files in those locations. Refer to the *NetBackup Administrator's Guide, Volume I* for more information about storing NBDB database files in alternate locations.

Note: This free disk space requirement assumes that you have already performed the best practice of completing a successful catalog backup before you begin the upgrade.

- Primary and media servers must have a minimum soft limit of 8000 file descriptors per process for NetBackup to run correctly.
  For more information about the effects of an insufficient number of file descriptors, refer to the following articles on the Cohesity Support website:
  http://www.veritas.com/docs/000013512
- NetBackup primary and media servers exchange server version information at startup, and every 24 hours. This exchange occurs automatically. During startup after an upgrade, the upgraded media server uses the `vmd` service to push its version information to all of the servers that are listed in its server list.
- Cohesity recommends that you have the primary server services up and available during a media server upgrade.
- All compressed files are compressed using gzip. The installation of these files requires gunzip and gzip, so make sure that they are installed on the computer before you attempt to install NetBackup. For all UNIX platforms except HP-UX, the binaries are expected to be in `/bin` or `/usr/bin` and that directory is a part of the root user's `PATH` variable. On HP-UX systems, the `gzip` and `gunzip` commands are expected to be in `/usr/contrib/bin`. Installation scripts add that directory to the `PATH` variable. These commands must be present to have successful UNIX installations.

Required operating system patches and updates for NetBackup

NetBackup server and client installations are only supported on a defined set of operating systems (OSs) that are listed in the NetBackup Compatibility Lists for All Versions. Most OS vendors provide patches, updates, and service packs (SPs) for their products. The best practice of NetBackup Quality Engineering is to test with the latest SP or update level of the OS when a platform is tested. Therefore, NetBackup is supported on all vendor GA updates (n.1, n.2, and so on) or SPs (SP1, SP2, and so on). However, if a known compatibility issue exists on a specific SP or updated OS level, this information is identified in the compatibility lists. If no

such compatibility issues are noted, Cohesity recommends that you install the latest OS updates on your servers and clients before you install or upgrade NetBackup.

The most up-to-date required OS patch information for NetBackup 11.0.0.1 and other NetBackup releases can be found on the Cohesity Services and Operational Readiness Tools (SORT) website and in the NetBackup Compatibility Lists for All Versions. The compatibility lists include information about the minimum OS level that is required to support a minimum NetBackup version in the latest major release line. In some cases, new releases of NetBackup may require specific vendor OS updates or patches.

See "About NetBackup compatibility lists and information" on page 39.

See "About Cohesity Services and Operations Readiness Tools" on page 31.

NetBackup 11.0.0.1 binary sizes

The following table contains the approximate binary sizes of the NetBackup 11.0.0.1 primary server, media server, and client software for the various supported operating systems. These binary sizes indicate the amount of disk space occupied by the product after an initial installation. Note that for the sizes listed in the table, 1 MB equals 1024 KB.

Note: The table lists only the supported operating systems. For up-to-date information about the specific operating system versions that NetBackup currently supports, check the Installation and Upgrade Checklist on the Services and Operations Readiness Tools (SORT) website, or the NetBackup Compatibility List for all Versions.

Table B-1 NetBackup binary sizes for compatible platforms

OS	CPU Architecture	64-bit client	64-bit server	Notes
AIX	64-bit client	1517 MB	No longer supported	
Alma Linux		1916 MB		
Amazon Linux		1916 MB		
BC-Linux		1916 MB		
Canonical Ubuntu	x86-64	1916 MB		

Table B-1 NetBackup binary sizes for compatible platforms *(continued)*

OS	CPU Architecture	64-bit client	64-bit server	Notes
CentOS	x86-64	1916 MB	6952 MB	
Debian GNU/Linux	x86-64	1916 MB		
Kylin Linux Advanced Server 10.0		1916 MB		
NeoKylin Linux Advanced Server		1916 MB		
Oracle Linux	x86-64	1916 MB	6952 MB	
Red Hat Enterprise Linux Server	POWER 8/9 client	522 MB		
Red Hat Enterprise Linux Server	x86-64	1916 MB	6952 MB	
Red Hat Enterprise Linux Server	z/Architecture	721 MB	No longer supported	Media server or client compatibility only.
Rocky Linux client		1916 MB		
Solaris	SPARC	1079 MB	No longer supported	
Solaris	x86-64	1034 MB	No longer supported	
SUSE Linux Enterprise Server	POWER 8/9 client	521 MB		
SUSE Linux Enterprise Server	x86-64	1417 MB	6299 MB	

Table B-1 NetBackup binary sizes for compatible platforms *(continued)*

OS	CPU Architecture	64-bit client	64-bit server	Notes
SUSE Linux Enterprise Server	z/Architecture	745 MB	No longer supported	Media server or client compatibility only.
Windows	x86-64	1159 MB	4312 MB	Covers all compatible Windows x64 platforms.

The following space requirements also apply to some NetBackup installations on Windows:

- If you install NetBackup in a custom location on a Windows system, some portions of the software are installed on the system drive regardless of the primary application folder location. The space that is required on the system drive generally accounts for 40 to 50 percent of the total binary size that is listed in the table.
- If you install NetBackup server on a Windows cluster, some portions of the software are installed on the cluster shared disk. Note, the space that is required on the cluster shared disk is in addition to the binary size that is listed in the table. The additional required space is equivalent to 15 to 20 percent of the total binary size.

Appendix C

NetBackup compatibility requirements

This appendix includes the following topics:

About compatibility between NetBackup versions

You can run mixed versions of NetBackup between primary servers, media servers, and clients. This back-level support lets you upgrade NetBackup one server at a time, which minimizes the effect on overall system performance.

NetBackup supports only certain combinations of servers and clients. In mixed version environments, certain computers must be the highest version. Specifically, the version order is: NetBackup Snapshot Manager computer, primary server, media server, and then clients. For example, the scenario that is shown is supported: 11.0 NetBackup Snapshot Manager > 10.2 primary server > 10.0 media server > 9.1.0.1 client.

All NetBackup versions are four digits long. The NetBackup 11.0 release is the 11.0.0.0 release. Likewise, the NetBackup 10.2 release is the NetBackup 10.2.0.0 release. For the purposes of supportability, the fourth digit is ignored. A 10.2 primary server supports a 10.2.0.1 media server. An example of what is not supported is a 10.2.0.1 primary server with a 11.0 media server.

The NetBackup catalog resides on the primary server. Therefore, the primary server is considered to be the client for a catalog backup. If your NetBackup configuration

includes a media server, it must use the same NetBackup version as the primary server to perform a catalog backup.

For complete information about compatibility between NetBackup versions, refer to the Cohesity SORT website.

Review the End of Support Life information available online.

About NetBackup compatibility lists and information

The *NetBackup Release Notes* document contains a great deal of the compatibility changes that are made between NetBackup versions. However, the most up-to-date compatibility information on platforms, peripherals, drives, and libraries can be found on the Cohesity Operations Readiness Tools (SORT) for NetBackup website.

See "About Cohesity Services and Operations Readiness Tools" on page 31.

For NetBackup, SORT provides an Installation and Upgrade Checklist report as well as the ability to collect, analyze, and report on host configurations across your environments. In addition, you can determine which release contains the hot fixes or EEBs that you may have installed in your environment. You can use this data to assess whether your systems are ready to install or upgrade to a given release.

NetBackup compatibility lists

In addition to SORT, Cohesity has made available a variety of compatibility lists to help customers quickly reference up-to-date compatibility information for NetBackup:

NetBackup Compatibility Lists for All Versions

Note: For information about which versions of NetBackup are compatible with each other, select a **Software Compatibility List (SCL)**, and then select **Compatibility Between NetBackup Versions** from within the SCL.

About NetBackup end-of-life notifications

Cohesity is committed to providing the best possible data protection experience for the widest variety of systems: platforms, operating systems, CPU architecture, databases, applications, and hardware. Cohesity continuously reviews NetBackup system support. This review ensures that the proper balance is made between maintaining support for existing versions of products, while also introducing new support for the following:

- General availability releases

- Latest versions of new software and hardware
- New NetBackup features and functionality

While Cohesity continually adds support for new features and systems, it may be necessary to improve, replace, or remove certain support in NetBackup. These support actions may affect older and lesser-used features and functionality. The affected features and functionality may include support for software, OS, databases, applications, hardware, and 3rd-party product integration. Other affected items may include the products that are no longer supported or nearing their end-of-support life with their manufacturer.

Cohesity provides advance notification to better help its customers to plan for upcoming changes to the support status of the various features in NetBackup. Cohesity intends to list older product functionality, features, systems, and the 3rd-party software products that are no longer supported in the next release of NetBackup. Cohesity makes these support listings available as soon as possible with a minimum of 6 months where feasible before major releases.

Using SORT

Advance notification of future platform and feature support including end-of-life (EOL) information is available through a widget on the Cohesity Services and Operations Readiness Tools (SORT) for NetBackup home page. The NetBackup Future Platform and Feature Plans widget on the SORT for NetBackup home page can be found directly at the following location:

https://sort.veritas.com/nbufutureplans

NetBackup end-of-support-life (EOSL) information is also available at the following location:

https://sort.veritas.com/eosl/show_matrix

See “About Cohesity Services and Operations Readiness Tools” on page 31.

About changes in platform compatibility

The NetBackup 11.0.0.1 release may contain changes in support for various systems. In addition to using SORT, you should make sure to review the *NetBackup Release Notes* document and the NetBackup compatibility lists before installing or upgrading NetBackup software.

See “About new enhancements and changes in NetBackup” on page 9.

http://www.netbackup.com/compatibility

Appendix D

Other NetBackup documentation and related documents

This appendix includes the following topics:

About related NetBackup documents

Cohesity releases various guides that relate to NetBackup software. Unless otherwise specified, the NetBackup documents can be downloaded in PDF format or viewed in HTML format from the NetBackup Documentation Landing Page.

Not all documents are published with each new release of NetBackup. In the guides, you may see references to other documents that were not published for NetBackup 11.0.0.1. In these cases, refer to the latest available version of the guide.

Note: Cohesity assumes no responsibility for the correct installation or use of PDF reader software.

All references to UNIX also apply to Linux platforms unless otherwise specified.
